Logic Model for Subobjective 1.2.2: Characterize Air Toxics (DRAFT)

EPA HEADQUARTERS

RESOURCES

Budget
39.6 FTEs
EPA $11.9 million

Statutory
CAA Title I, Part A & Part D, Subparts 3 & 5 (42 USC 7401-7431, 7512-7512a, 7514-7514a) (15 USC 2605);
CAA Title II, Section 202 (1)(2);
CAA Title IV (42 USC 7641-7642)

Partnerships
DOE DOT DOD
OSHA HHS
Clean Air Partnership Fund
STAPPA/ALAPCO
Regional State Associations (MARAMA, NESCAUM, etc.)
NOAA

Other EPA Offices
ORD (See 1.1.1)
OW
OPPTS
OECA
OSWER

Stakeholder Input
Industry
Public

Research Results (Subobjective 1.2.1)

PROGRAMS/ACTIVITIES

Quantitatively evaluate, characterize, and track risk-based indicators.
Perform National Air Toxics Assessment (NATA)

Emissions Characterization
Develop:
- National Toxics Inventory
- Emissions test methods
- Continuous emission monitoring techniques
- Emissions factors

Ambient Characterization
Expand air toxics ambient monitoring network.
Develop and refine exposure and dispersion models.

Risk Characterization and Other Programs
- Conduct local air toxics assessments
- Perform exposure assessments
- Perform integrated multimedia assessments
- Define which risk-based indicators to use
- Assist with Community Assessments/Risk Reduction (CARR) Programs
- Establish Persistent Bioaccumulative Toxics (PBT) Program
- Maintain Database for Risk Management Plans
- Develop technical tools needed to implement strategies and programs to reduce risk
- Assist with Implementation of State/Local/Tribal Assistance Grants

Note: Technical tools would include models, ambient and emissions monitoring networks and technology, air polllution controls, P2 techniques. (See above and Subobjective 1.2.1)

OUTPUTS

Outputs of NATA include:
- Areas of concern identified
- Improved Risk Characterization
- Progress Tracking
- Prioritized Efforts
- Emissions Inventories
- Air quality, exposure, and risk modeling
- Research on effects & assessments

NTI Report
UATW Database

- Expanded monitoring network
- Ambient data

Assessments
- Local Air Toxics
- Exposure
- Integrated Multi-media
- Community
- Residual Risk
- CARR Programs

Reports on Risk Analysis & Characterizations

National Action Plans on PBTs

State/Local/Tribal Framework

Some outputs assist OW in Clean Water Goals

Outputs also feed into Subobjective 1.2.3

CUSTOMERS

OAR

Regions

State/Local/Tribal Agencies

Industry

Environmental Groups

Public

OW

Congress

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Customers are aware of the air toxics characterization programs.

Customers gain knowledge about the extent, causes, sources, and effects of pollution, and the effectiveness of control strategies.

Customers know the stated ambient condition and what is needed to protect the public health.

Customers desire to change their behavior.

Customers support the program efforts to reduce air toxics exposures and risks.

EPA REGIONS

RESOURCES

Budget
FTEs 8.8
EPA $0.8 million

Infrastructure
Regional ESD operations support
Computer systems and data support

Information
EPA regulations
HQ policies and guidance
HQ operating plans
MOAs (OAR and OECA)

Partnerships
OECA
OPPTS
STAPPA/ALAPCO
Regional State Associations (MARAMA, NESCAUM, etc.)
EPA HQ, OW, ORD

Stakeholder Input
Industry
Public

PROGRAMS/ACTIVITIES

Assist States/Locals/Tribes to implement an air toxics program by developing:
- A National Toxics Inventory
- An ambient monitoring network for states
- CARR programs
- An infrastructure to implement risk based air toxics program
- New strategies to reduce toxics exposure and emissions from significant sources
- State priorities
- Delegations for various air toxics programs

Assist States/Locals/Tribes on adopting new regulations concerning air toxics emissions from utilities.

Assist States/Locals/Tribes on inputting MACT compliance information.

Deploy implementation tools for PBT evaluation and provide support.

Provide support for State motor vehicle control and fuel programs.

Provide air toxics monitoring support to State/Locals/Tribes.

Perform outreach to States/Locals/Tribes.

Direct stakeholders to use information from the Internet.

Interpret guidance and provide technical support to industry.

OUTPUTS

Guidance and support to States/Locals/Tribes for implementing air toxics program:

- National Toxics Inventory
- Ambient air toxics monitoring network
- CARR programs.
- Infrastructure to implement risk based air toxics program.
- New strategies to reduce toxics exposure and emissions from significant sources.
- Analysis of toxics reductions.
- Prioritized list on sources of significant concern.
- Delegations for various air toxics programs.
- Regulations for Electric Utilities.
- Compliance data submissions.
- PBT tools and technical support.
- State motor vehicle control and fuel programs.
- Ambient air toxics monitoring plan.
- Regional/State Association meetings and seminars.
- Stakeholder meetings, outreach, information on Internet use.
- Technical support to industry

CUSTOMERS

State/Local/ Tribal Agencies

Industry

Environmental Groups

Public

Partners

Feedback to EPA HQ

Congress

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Customers are aware of the air toxics program's implement-ation activities that are important to the Region.

Customers understand the guidance and control strategies provided.

Customers understand the need to control the air toxic emissions.

STATE/LOCAL/TRIBE AGENCIES

RESOURCES

Budget
105 Grants = 17 million
Title V permit fees
Performance Partnership Agreements (PPA)
Performance Partnership Grants (PPG)

Infrastructure
State computer systems and data support
State monitoring networks
State Laboratories and Testing support

Information
EPA regulations, policies, and guidance.
State Delegation
State Regulations

Partnerships
EPA HQ
EPA Regions
STAPPA/ALAPCO
Regional State Associations (MARAMA, NESCAUM, etc.)

Stakeholder Input
Industry
Public

PROGRAMS/ACTIVITIES

If necessary, request delegations for various air toxics programs.

In consultation with EPA, begin:
- implementing air toxics characterization programs.
- determining state priorities.
- operating air toxics monitoring network (using NATA air toxics data).

Input compliance data for MACTs.

Submit air toxics monitoring results to EPA .

Submit to EPA data for National Toxics Inventory.

Use Internet to obtain information on air toxics for urban areas and hotspots.

Encourage the use of the Internet for all stakeholders.

Use PBT evaluation tools as needed for state-specific concerns.

Identify significant air toxics source categories and utilize EPA strategies to develop a state-specific strategy to reduce risk or emissions from air toxics.

Implementation of selected strategies.

Develop CARR programs.

OUTPUTS

Air toxics characterization programs

Air toxics monitoring systems

Compliance measures for significant and applicable source categories.

Compliance Reports

Air toxics monitoring data

National Toxics Inventory

Information on air toxics for urban areas and hotspots.

Results of using PBT evaluation tools

State-specific strategies to reduce risk or emissions from air toxics, including follow-up reports or summaries of status.

CARR Programs

CUSTOMERS

State/Local/ Tribal Agencies

Legislatures

Industry

Environmental groups

Chambers of Commerce

Public

Partners

EPA HQ

Regions

Congress

SHORT-TERM OUTCOMES (Knowledge, Attitudes, Skills, and Aspirations)

Industry is aware of the air toxics activities that are important to the state/locals.

Customers understand the guidance and strategies provided.

Public becomes aware of actions that create air pollution.

Customers desire to change behavior and work toward achieving implementation goals.

Note: As a result of programs constantly changing, this model remains a draft.

SHORT-TERM OUTCOMES (Actions)

In conjunction with EPA HQ and Regions, States, Locals and Tribes:

- Begin implementation of air toxics characterization programs.*****
- Provide information concerning compliance monitoring.
- Implement strategies to reduce exposure and risk.*****
- Submit results of ambient monitoring and participate in setting monitoring networks.
- Provide explanations of toxics data.

** Short-term outcome actions in this model translate to activities in the 1.2.3 model.*

OTHER EPA AND NON-EPA PROGRAMS THAT CONTRIBUTE TO CHARACTERIZATION OF AIR TOXICS

EPA GOAL 1 PROGRAMS

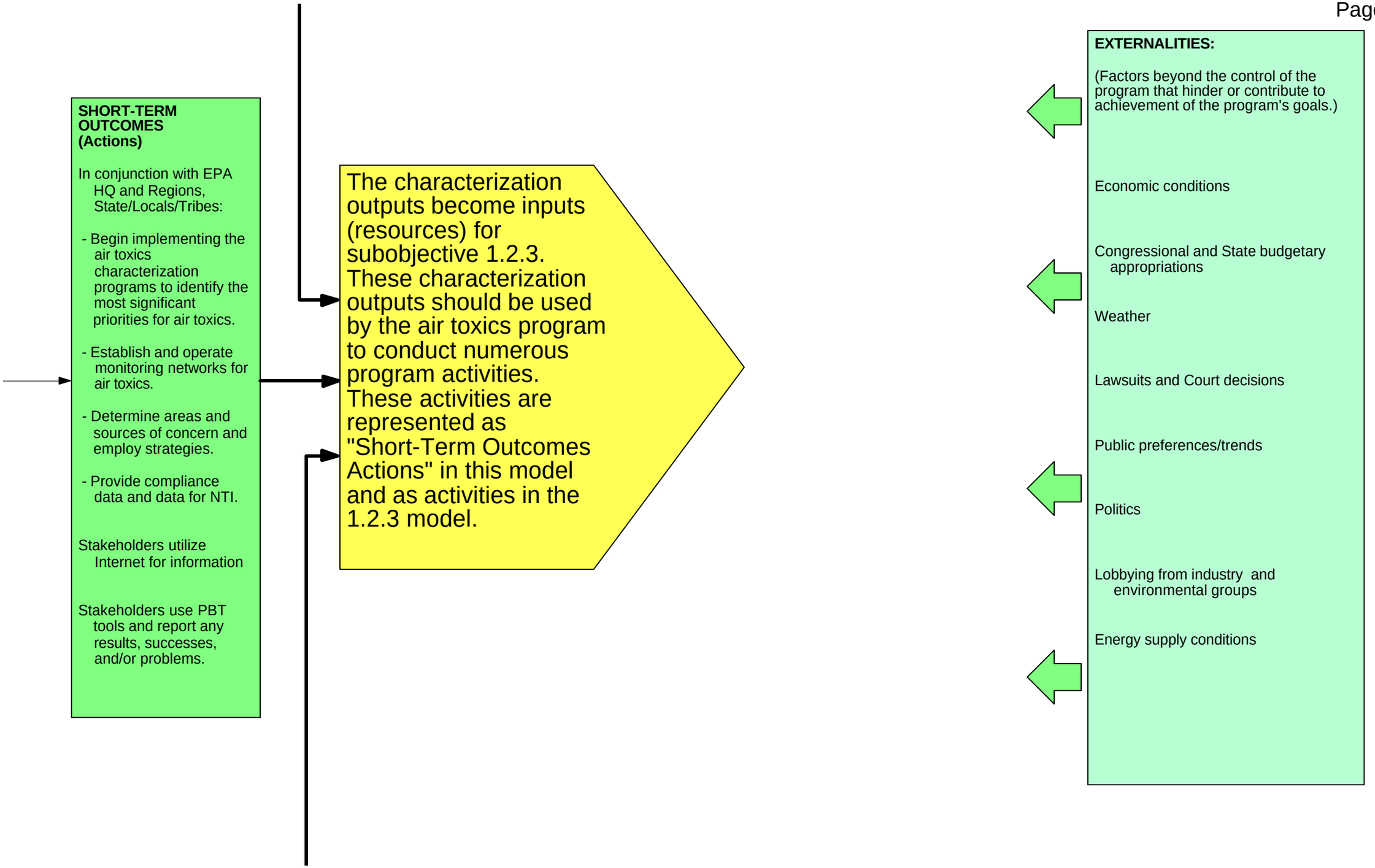
Subobjective 1.1.8 - Conduct NAAQS-Related Research
Subobjective 1.2.1 - Conduct Air Toxics Research

EPA NON-GOAL 1 PROGRAMS

Goal 4 - Preventing Pollution and Reducing Risk in Communities, Homes, Workplace, and Ecosystems
Goal 8 - Sound Science, Improved Understanding of Environmental Risk, and Greater Innovation to Address Environmental Problems

FEDERAL AGENCY PROGRAMS

Include, but not limited to:
Department of Defense
Department of Energy


SHORT-TERM OUTCOMES (Actions)
In conjunction with EPA HQ and Regions, State/Locals/Tribes:
- Begin implementing the air toxics characterization programs to identify the most significant priorities for air toxics.
- Establish and operate monitoring networks for air toxics.
- Determine areas and sources of concern and employ strategies.
- Provide compliance data and data for NTI.
Stakeholders utilize Internet for information
Stakeholders use PBT tools and report any results, successes, and/or problems.
The characterization outputs become inputs (resources) for subobjective 1.2.3. These characterization outputs should be used by the air toxics program to conduct numerous program activities. These activities are represented as "Short-Term Outcomes Actions" in this model and as activities in the 1.2.3 model.
EXTERNALITIES:
(Factors beyond the control of the program that hinder or contribute to achievement of the program's goals.)
Economic conditions
Congressional and State budgetary appropriations
Weather
Lawsuits and Court decisions
Public preferences/trends
Politics
Lobbying from industry and environmental groups
Energy supply conditions

SHORT-TERM OUTCOMES
Actions

Policymakers utilize air toxics data to develop strategies, regulations, rules, guidance, etc.

Due to increased awareness of air toxics, customers support efforts to reduce air toxics exposure and risk.

FOOTNOTES:

[1] = This model represents the intended design of the program based on EPA planning and budget documents, numerous EPA web-based information, applicable statutes and regulations, interviews with EPA officials, and comments from EPA officials on the preliminary versions of the model. We did not discuss the model or its contents with EPA external stakeholders such as Congressional members, industry groups, environmental groups, or state agencies. Further, we did not perform work to test whether the program is being implemented as depicted in this model.

[2] = Activities are divided into categories which capture related activities. The categories list general programs or strategies in place, not the specific activities being conducted. Activities or programs that do not receive funding from this GPRA subobjective are not listed. Cross-cutting infrastructure activities that support all Goal 1 subobjectives (e.g., resource management, information management, Title V permitting and Tribal programs) are not listed here.

[3] = OGC provides advice/legal support in developing rules, handling lawsuits, Congressional Inquiries, document requests, FOIA requests, and Discovery Requests from DOJ.

[4] = OGC provides advice/legal support for: adverse comments on a SIP, non- attainment programs, high profile facilities, source redesignations, Title V issues, and increased sanctions.

[5] = OECA activities include: developing enforcement-related rulemakings, policy, and guidance; ensuring enforceability of rules; setting national enforcement priorities; investigating and deterring violations; participating in civil and administrative case negotiations, litigation and settlements; managing national enforcement programs; collecting and integrating compliance and enforcement data; developing enforcement initiatives; and coordinating enforcement activities with States, Locals, Tribes, EPA Regions, OGC, DOJ and other Federal Agencies. Most state and local agencies are authorized to operate federal air regulatory programs which includes conducting compliance monitoring activities such as on-site inspections and initiating appropriate enforcement actions in response to identified violations.